

FIG. 1

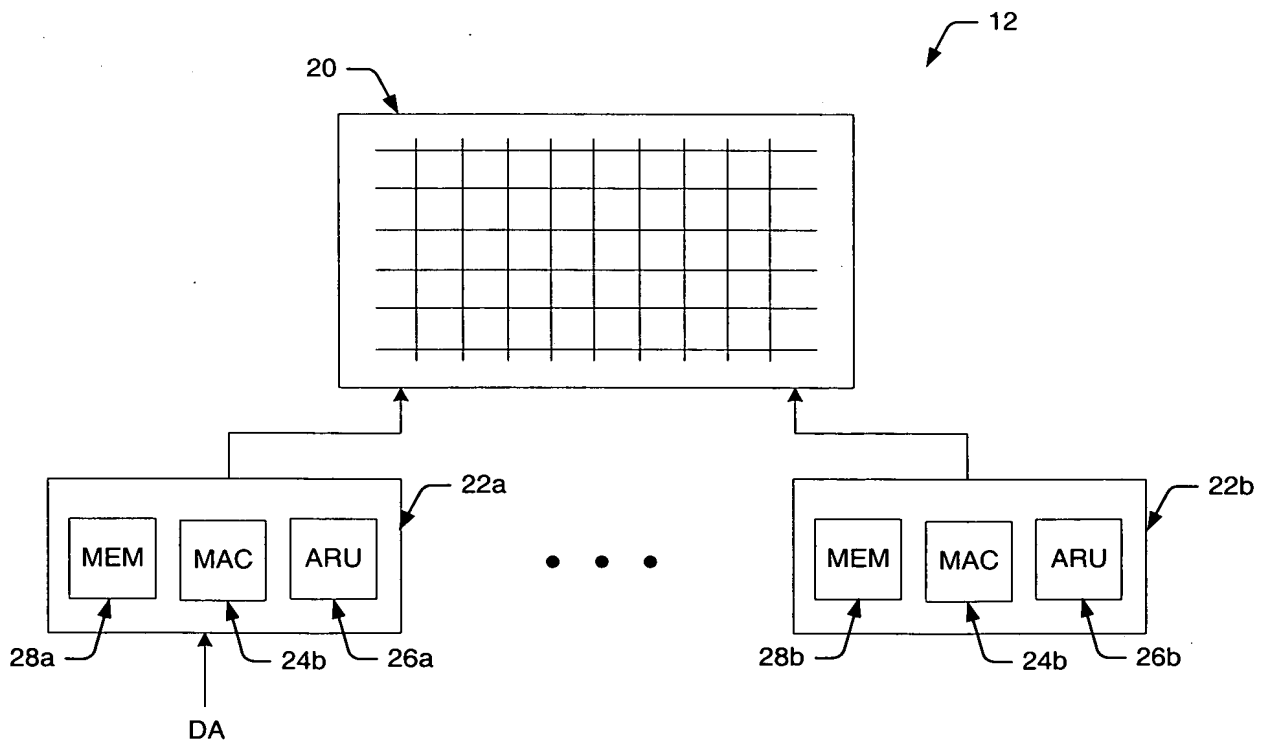


FIG. 2

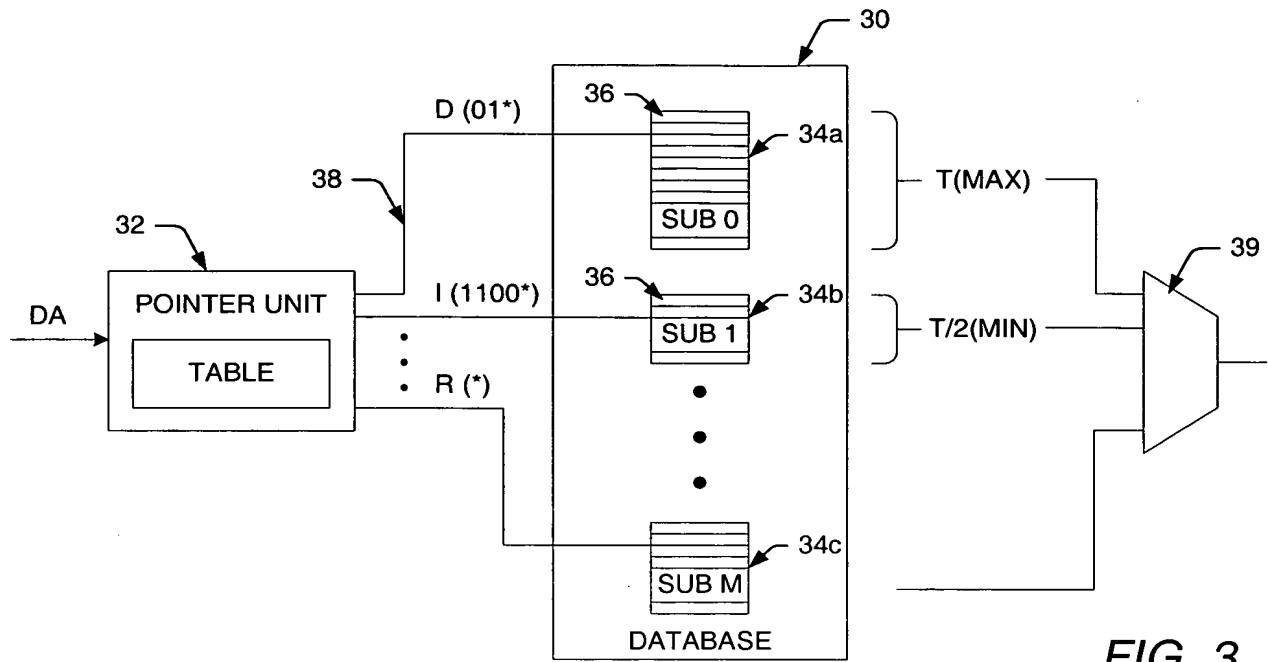


FIG. 3

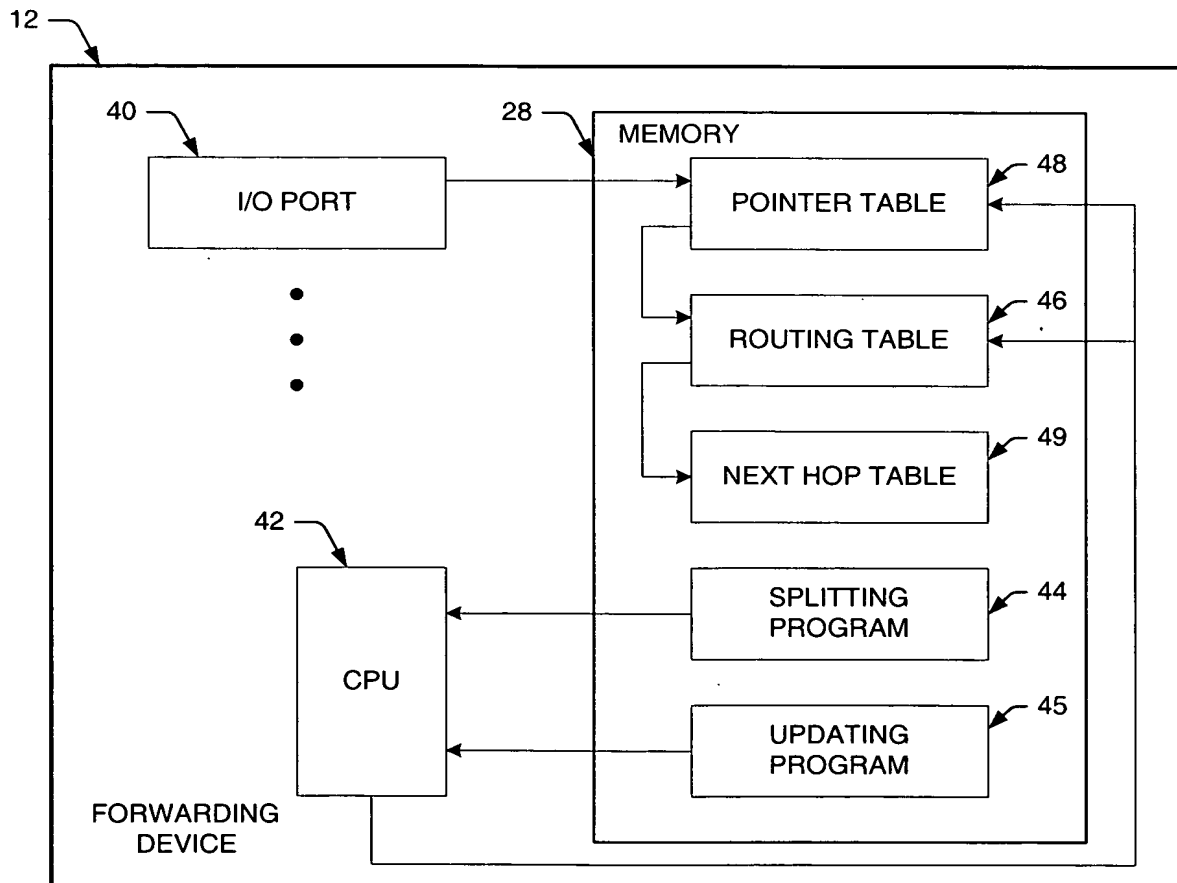


FIG. 4

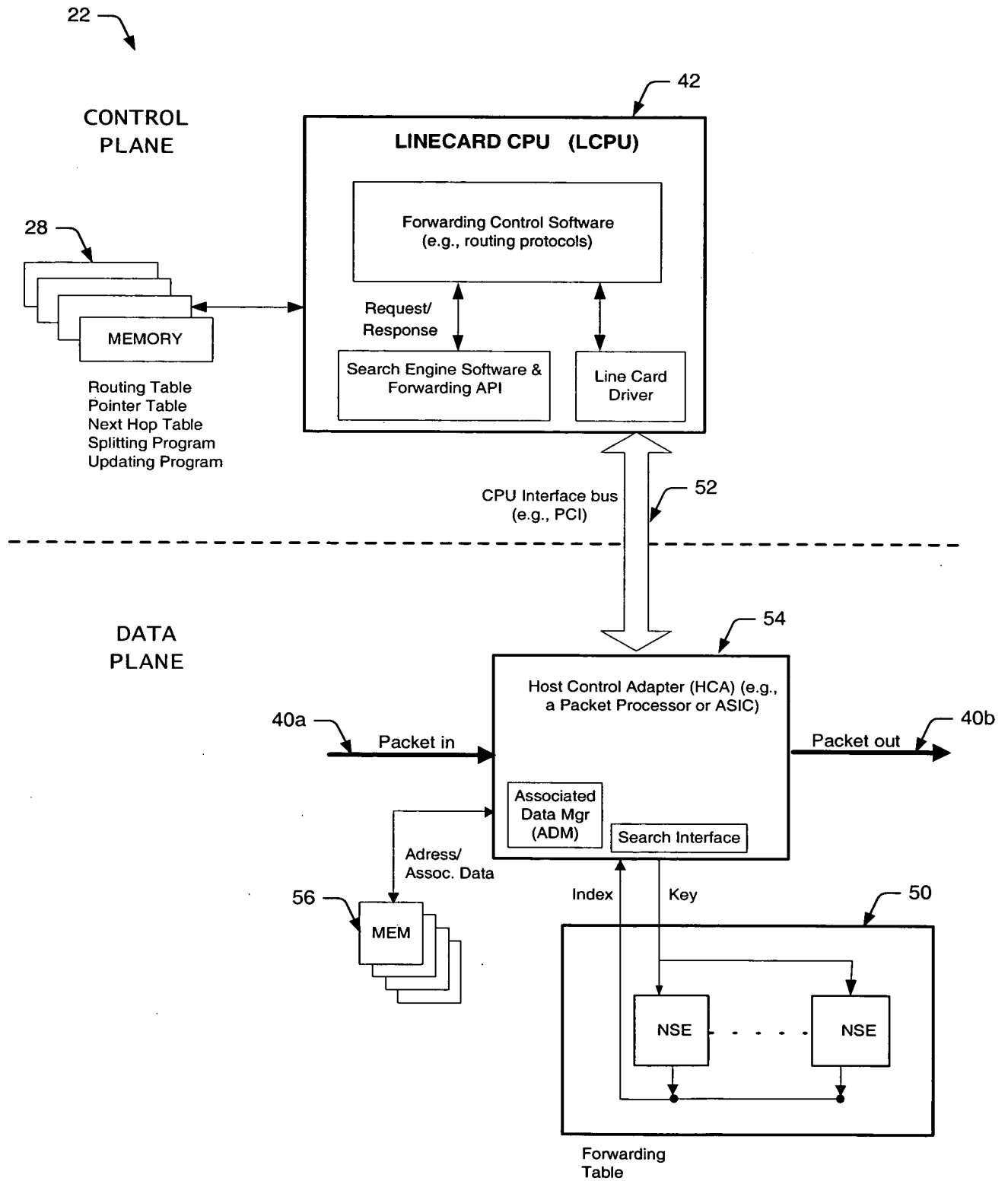


FIG. 5

4/12

# STATIC SPLIT MERGE (SSM) ALGORITHM

T=50; N=300; Ns=7

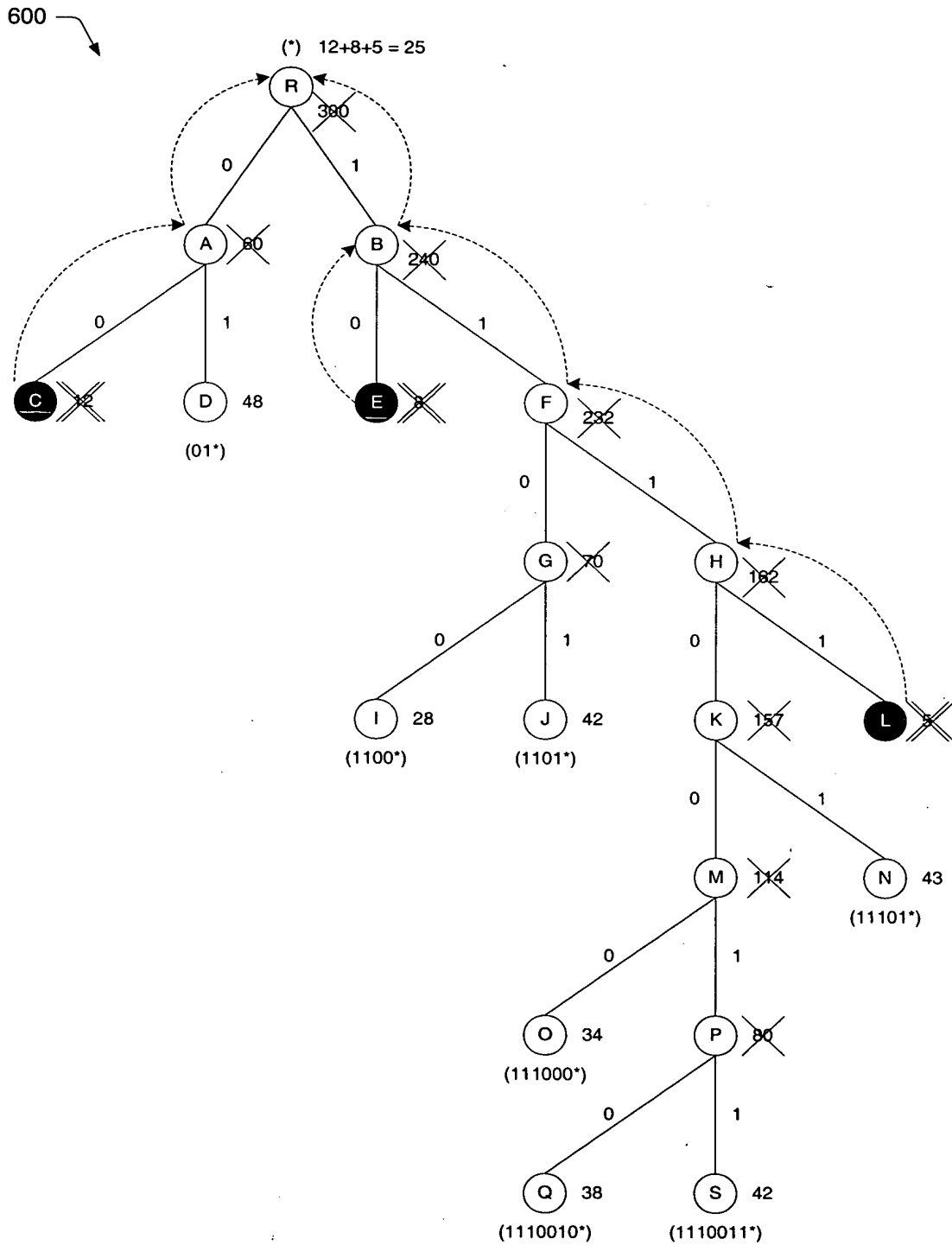


FIG. 6

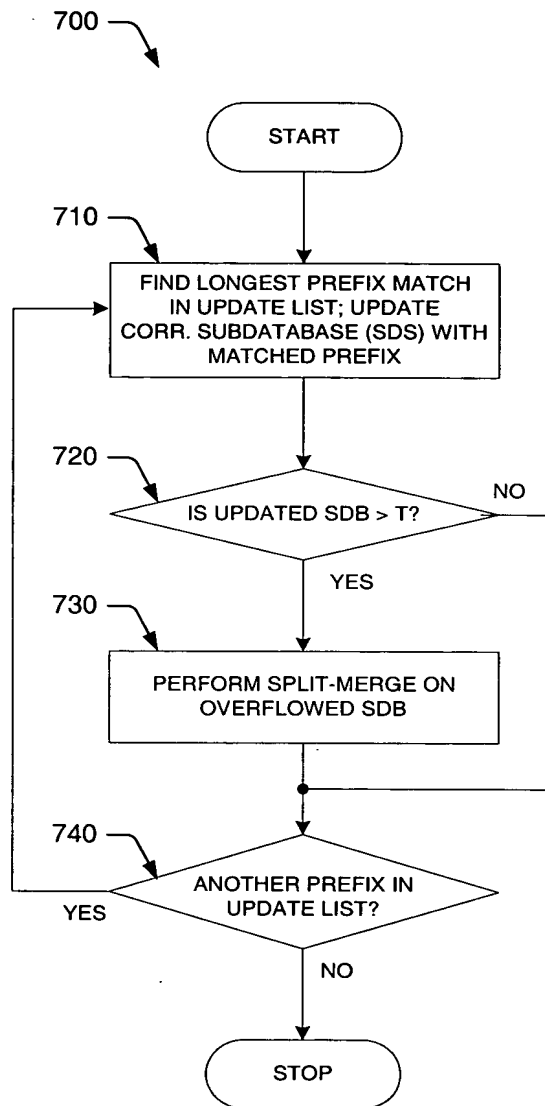


FIG. 7A

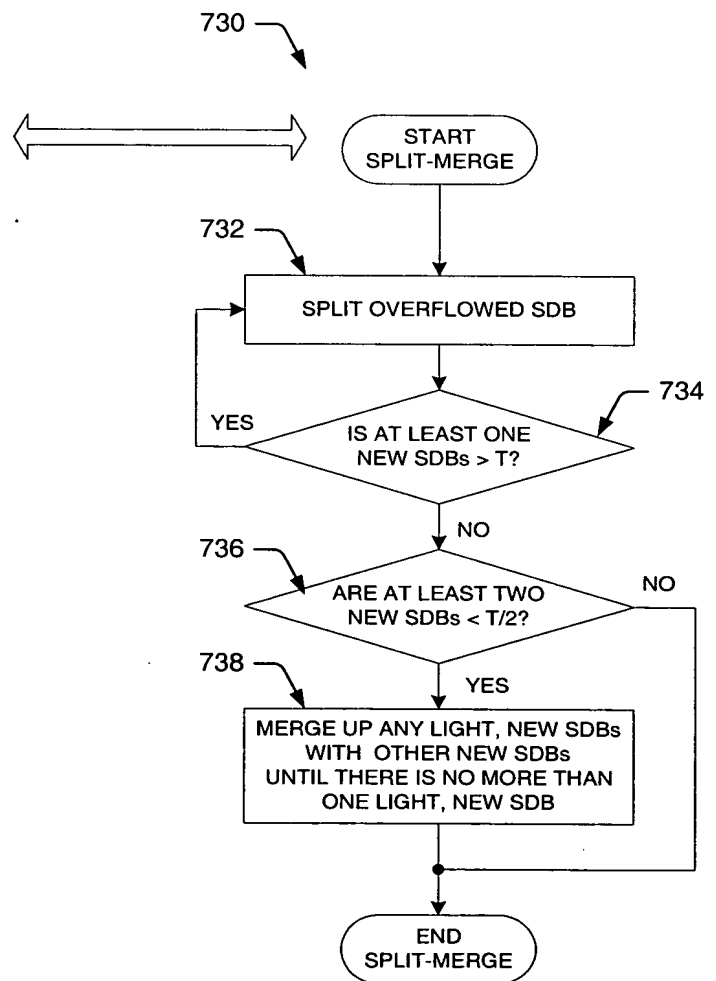
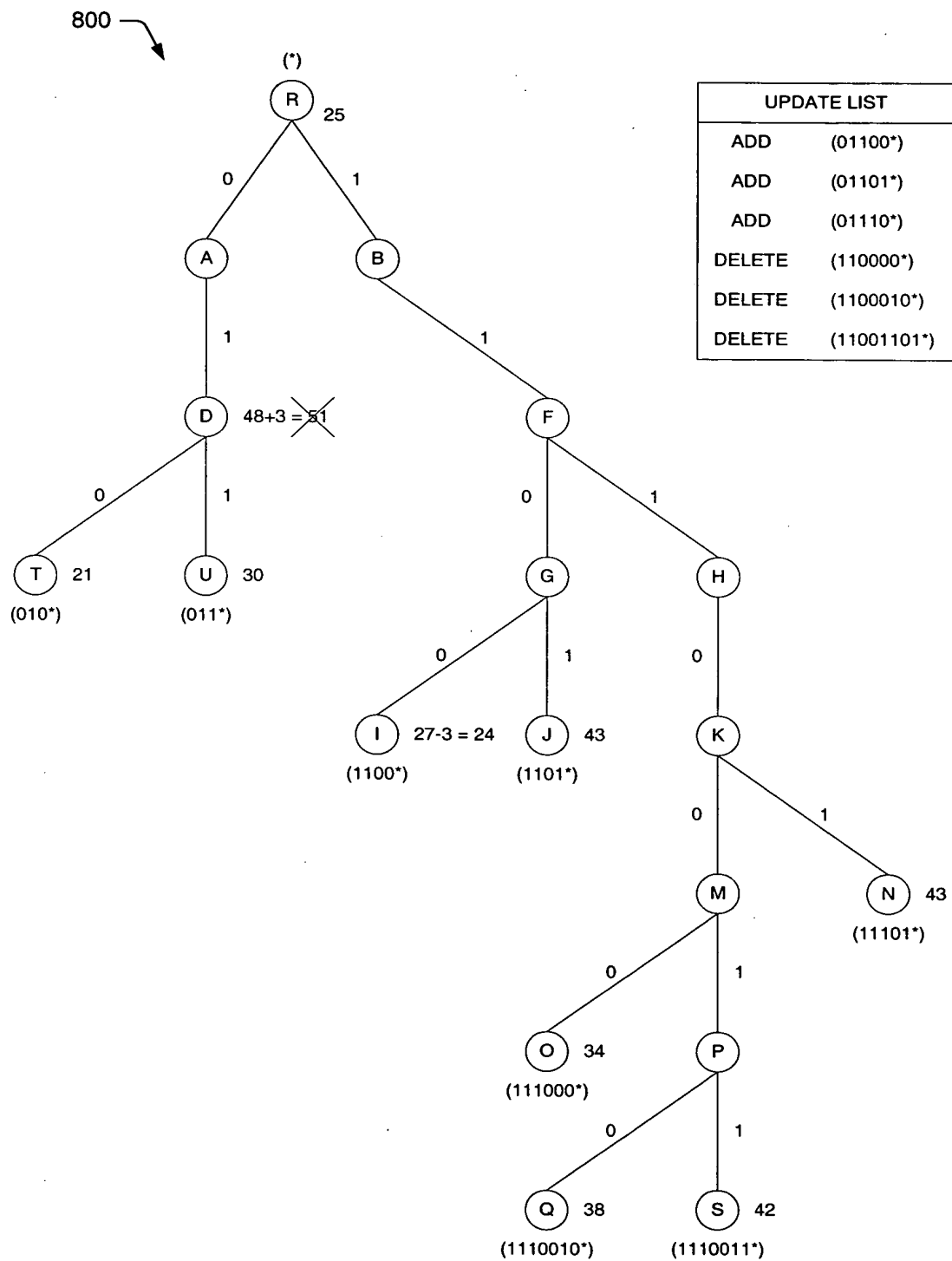


FIG. 7B

6/12  
BASIC INCREMENTAL SPLIT MERGE (BISM) ALGORITHM

T=50; N=300; Ns=9



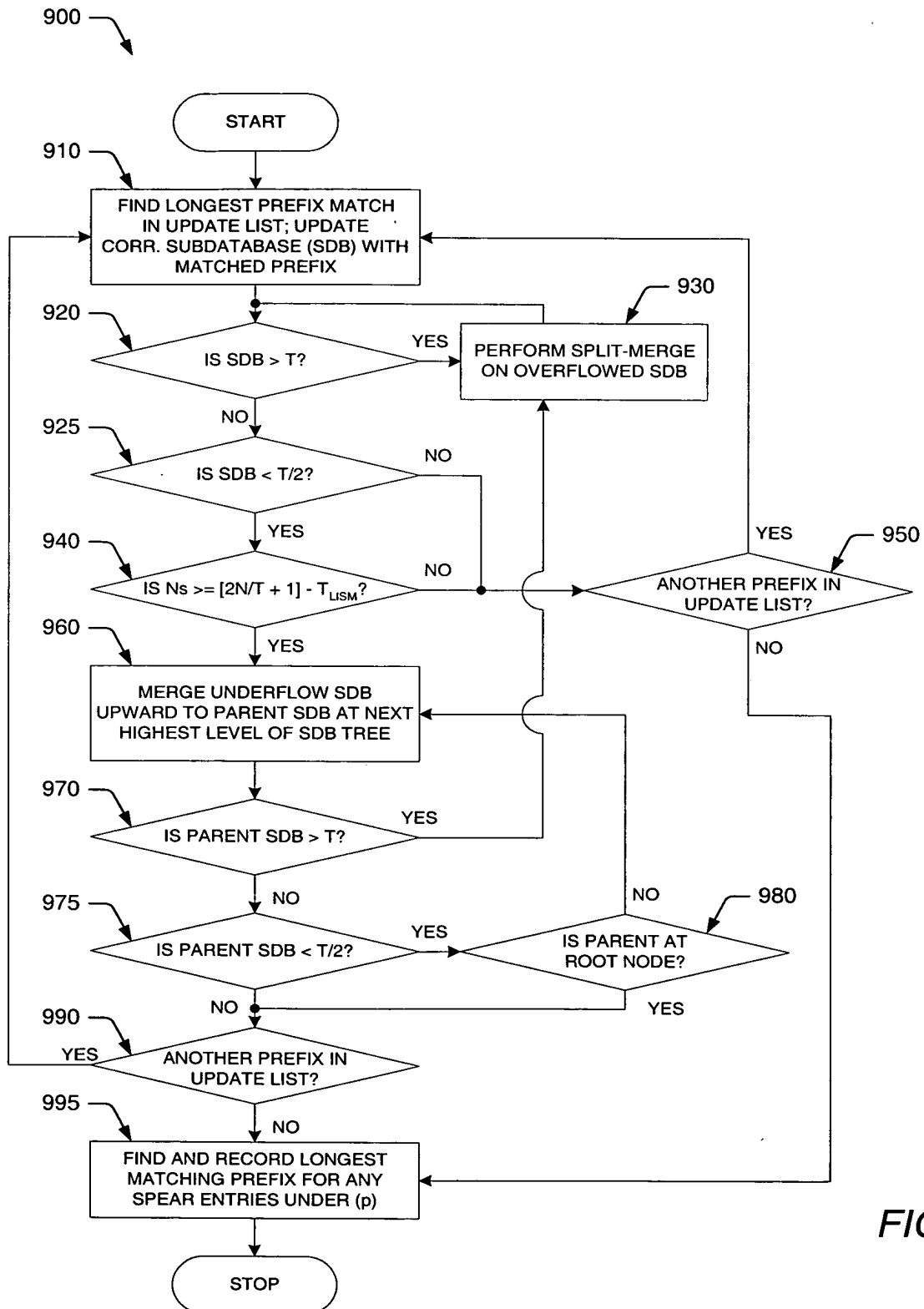


FIG. 9

## LAZY INCREMENTAL SPLIT MERGE (LISM) ALGORITHM

1000

(\*)  $25+21 = 46$

R

0 1

A B

1 0

D U 30 (011\*)

0 1

T

1 0

F G

0 1

I 27-3 = 24 (1100\*) J 43 (1101\*)

0 1

H K

0 1

M N 43 (11101\*)

0 1

O 34 (111000\*) P

0 1

Q 38 (1110010\*) S 42 (1110011\*)

UPDATE LIST	
ADD	(01100*)
ADD	(01101*)
ADD	(01110*)
DELETE	(110000*)
DELETE	(1100010*)
DELETE	(11001101*)

**FIG. 10**



9/12

# LAZY INCREMENTAL SPLIT MERGE (LISM) ALGORITHM

$T=50$ ;  $N=300$ ;  $T_m=5$ ;  $(2N/T)+1=13$ ;  $N_s=8$

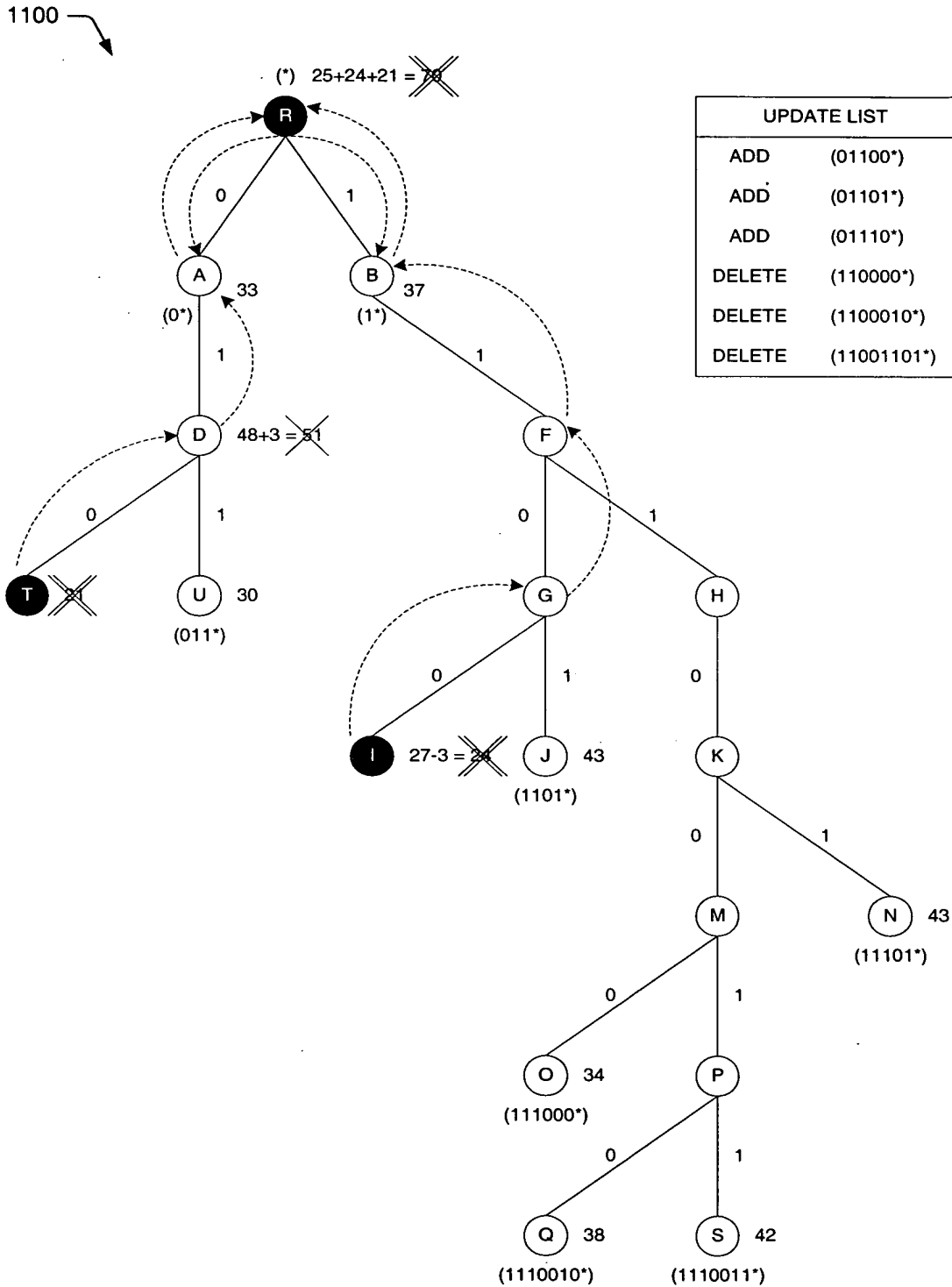


FIG. 11

10/12

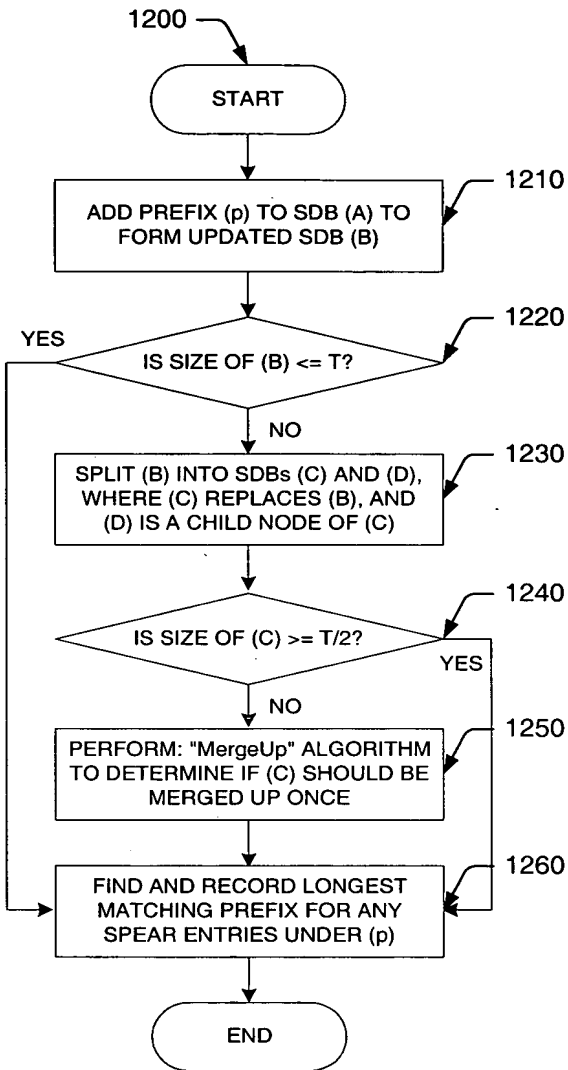


FIG. 12A

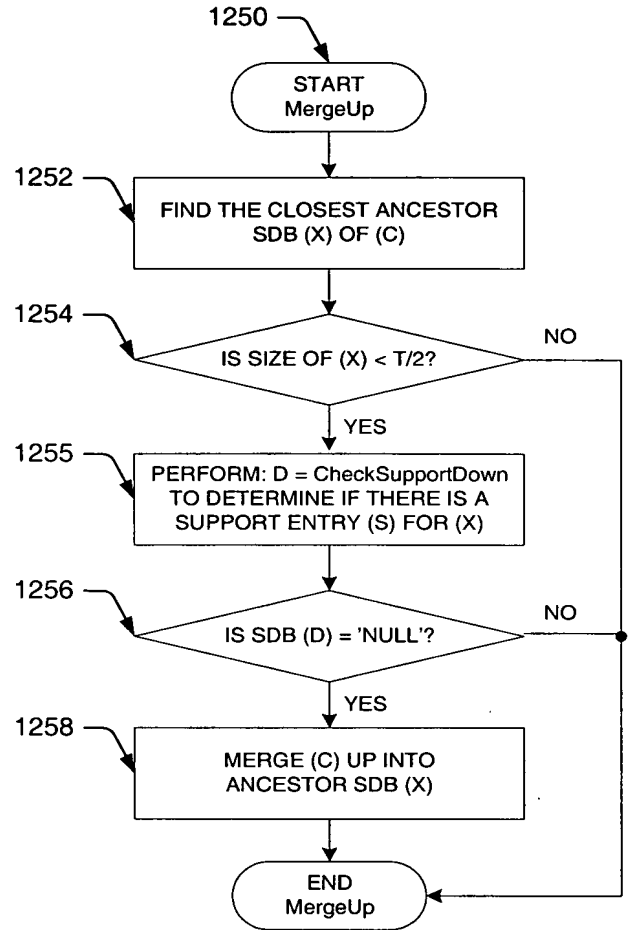


FIG. 12B

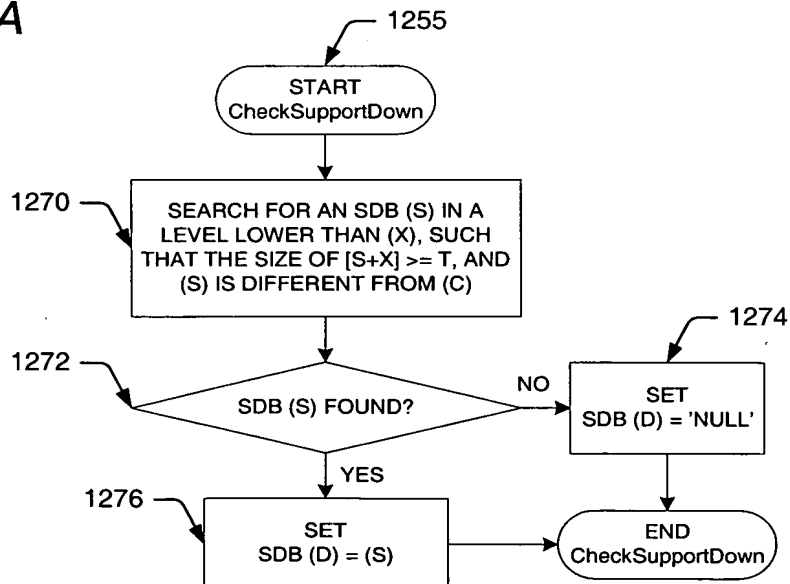


FIG. 12C

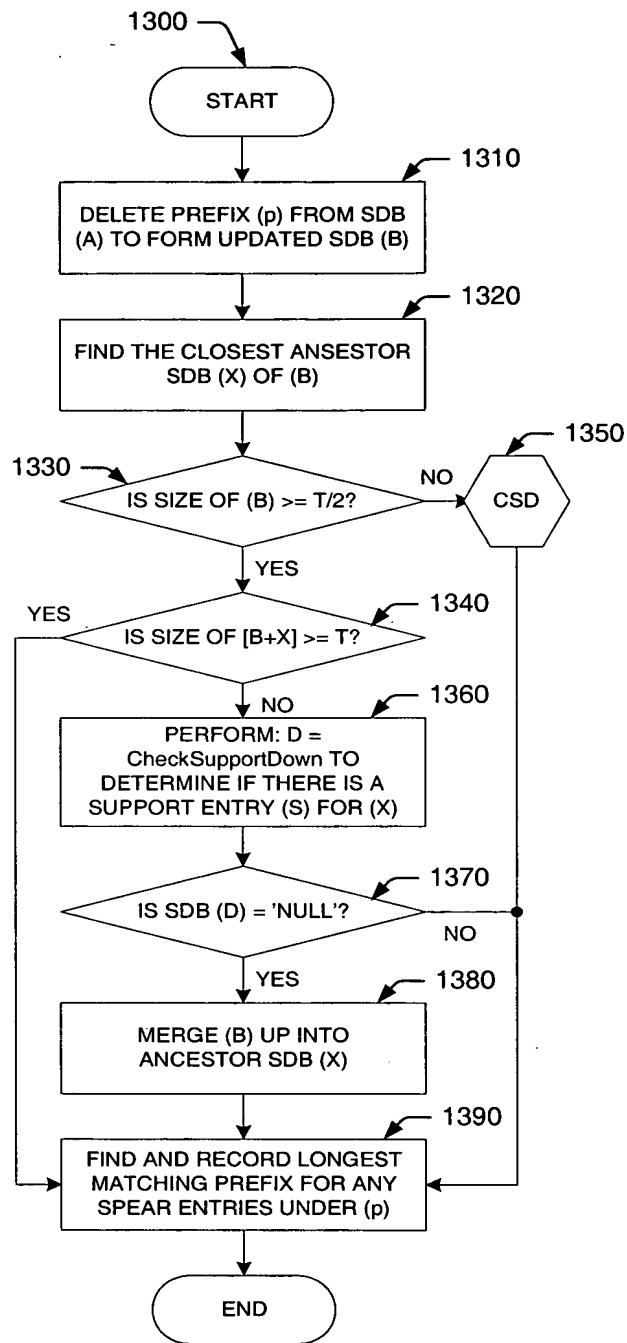


FIG. 13A

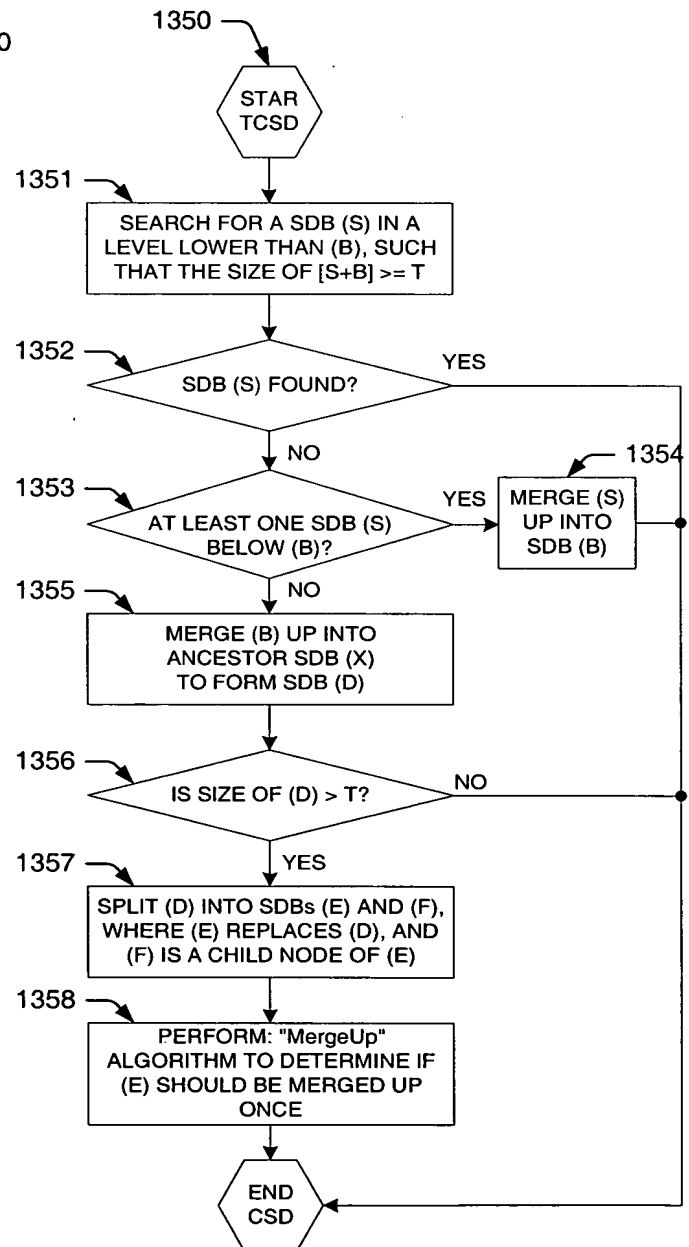


FIG. 13B

1400

(\*)  $25+24 = 49$

UPDATE LIST	
ADD	(01100*)
ADD	(01101*)
ADD	(01110*)
DELETE	(110000*)
DELETE	(1100010*)
DELETE	(11001101*)

21 (T)  $(01^*)$   $48+3 = 51$

U 30  $(011^*)$

I 27-3 = 24

J 43  $(1101^*)$

N 43  $(11101^*)$

O 34  $(111000^*)$

P 42  $(1110011^*)$

Q 38  $(1110010^*)$

S 42

FIG. 14